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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/571,613	09/14/2006	Shinji Oishi	2006_0303A	4805

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WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER	
CHARLES, MARCUS	
ART UNIT	**PAPER NUMBER**
3656	

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02/10/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/571,613	OISHI ET AL.	
	Examiner	Art Unit	
	Marcus Charles	3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3-10-2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This is the first action relating to serial application number 10/571,613 filed 09/14/2006. Claims 1-17 are currently pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The examiner has accepted the drawing filed with this application as formal drawing.

Specification

Abstract

3. The abstract of the disclosure is objected to because the abstract include phrases which can be implied and refers to purported merits or speculative applications of the invention and should be a single paragraph long. Correction is required. See MPEP § 608.01(b). In addition, the term “Fig.1” at the end of the abstract should be deleted. It is not proper to use the phrase “e.g.” in the abstract, such phrase should be deleted.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and

"said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

4. The disclosure is objected to because of the following informalities: it is difficult to clearly identify the title. The title should be written in bold letters so that it can be distinguish from the main body of the specification.

The disclosure makes reference to “patent document numbers” e.g. “Patent document 1 etc. These phrases must be deleted from the disclosure.

The use of square parenthesis in the specification is not clear because "square parenthesis" indicate what is to be deleted. The specification is replete with two different parentheses and it is not clear if each of square parentheses indicates a deletion. E.g. [Disclosure of the invention] , [Problems to be solved by

the Invention] and [Brief description of the drawing] including [fig.1……fig. 12).

Note the square parenthesis should not be used to delete more the five

consecutive words.

The subtitles are missing and the related paragraphs are not arranged in

proper order.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP (04-231722) to Furukawa. Furukawa discloses a shell type needle roller bearing comprising a plurality of rollers (2) arranged along the inner surface of the outer ring (1), wherein the surface roughness (1b) of the inner diameter surface of the outer ring is finer than that of the outer diameter surface (1a).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa in view of Honda et al. (5,456,538**.** Furukawa fails to disclose the surface roughness of the inner diameter surface range of between 0.05 and 0.3. Honda et al. discloses a bearing surface (4) having a circumferential roughness .0.04 micrometers and an axial direction of 0.08 to 0.15 micrometers. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the surface of the device of Furukawa to include the circumferential and axial roughness value of the surface Honda et al. in order to reduce heat generation.

9. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over (2003-004051). JP (2003-004051) discloses a shell type needle bearing having an outer race formed by pressing (iron stepping) in order to improve precision of the surface roughness. In addition, JP (2003-004051) fails to disclose the roundness and evenness value is less that 10 μm. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the surface so that the roundness and evenness is less that 10 μm, since it has been held that where the general conditions of a claim is disclosed in the prior art, discovering the optimum ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

10. Claims 6-8 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa in view (2003-004051). Furkawa discloses the pressing method is a step ironing method but fails to disclose the roundness and evenness value is less that 10 μm. JP (2003-004051) discloses the claimed invention above as in paragraph 10, above. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the surface so that the roundness and evenness is less that 10 μm, since it has been held that where the general conditions of a claim is disclosed in the prior art, discovering the optimum ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claims 6-8, 12 and 13, the section (s) that deals with the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa in view of JP (2003-004051) as applied to claim 6 above, and further in view of JP (2002-031212). Furukawa fails to disclose the steel sheet is coated with phosphate. JP (2002-031212) discloses an inner raceway of an outer race (10) of a sliding bearing made from a steel sheet and is coated with phosphate in order to prevent corroding and to provide a lubricating action. Therefore, it would have been obvious to one of ordinary skill in the art to modify the surface of Furukawa so as to include a phosphate coating in view of JP (2002-031212) in order to in order to prevent corroding and to provide a lubricating action.

12. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa in view of Honda et al. as applied to claim 2 above, and further in view of JP (11-351145) to Shingo. Furukawa fails to disclose the needle roller (16) in a support structure for a spindle of a compressor for supporting the radial load on the spindle, as claimed. Shingo discloses a supporting structure which is a compressor (see fig. 5) comprising a needle roller (16) supporting the radial load on the spindle (10). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the bearing of Furukawa so that is used in a support structure for supporting a spindle in view of Nojiri in order to reduce friction, wear and to distribute the radial on a wider area on the spindle.

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa in view of Honda et al. as applied to claim 2 above, and further in view of Budecker (4,977,606). Furukawa fails to disclose the needle roller in a support structure of a piston pump as claimed. Budecker discloses piston pump (fig. 4) having a motor output shaft (5) and a shell type needle bearing (8/9c) mounted on eccentric portion (6) of the motor output shaft (5) and supporting a plurality of pistons (10). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the bearing of Furukawa so that it can be used in a piston pump of Budecker in order to reduce friction, wear and for effectively distributing the load on a wider area on the piston.

14. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over (2003-004051) in view of JP (11-351145). JP (2003-004051) fails to disclose the needle roller in a support structure for a spindle of a compressor for supporting the radial load on the spindle, as claimed. Shingo discloses a supporting structure which is a compressor (see fig. 5) comprising a needle roller (16) supporting the radial load on the spindle (10). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the bearing of JP (2003-004051) so that is used in a support structure for supporting a spindle in view of JP (11-351145). in order to reduce friction, wear and for effectively distributing the load of the piston.

15. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP (2003-004051) in view of Budecker (4,977,606). JP (2003-004051) fails to disclose the needle roller in a support structure of a piston pump

as claimed. Budecker discloses piston pump (fig. 4) having a motor output shaft (5) and a shell type needle bearing (8/9c) mounted on eccentric portion (6) of the motor output shaft (5) and supporting a plurality of pistons (10). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the bearing of JP (2003-004051) so that it can be used in a piston pump of Budecker in order to reduce friction, wear and for effectively distributing the load on a wider area on the piston.

Citation

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the prior art cited in attached PTO Form 892.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marcus Charles
/Marcus Charles/
Primary Examiner, Art Unit 3656